

*Sealed-Lead  
Battery Selection  
Guide*



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**Cyclon Cell/Battery Performance Benefits**

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**Cyclon Single Cell/Batteries**

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8 Volts	5.0Ah	Case and Shrink	13
12 Volts	2.5Ah	Case	14
	2.5Ah	Shrink	15
	5.0Ah	Case	16
	5.0Ah	Shrink	17
	12.5Ah	Shrink	18
	25.0Ah	Case	19

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**Cyclon Monobloc Batteries**

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4 Volts	2.5/5.0/8.0Ah	Monoblocs	21
6 Volts	2.5/5.0/8.0Ah	Monoblocs	22
	2.5/5.0/8.0Ah	Monoblocs (Flame retardant)	23
8 Volts	2.5/5.0Ah	Monoblocs	24
	8.0Ah	Monoblocs	25
12 Volts	2.5/5.0Ah	Monoblocs	26
	8.0Ah	Monoblocs	27

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Listing by Product Number

Back Cover

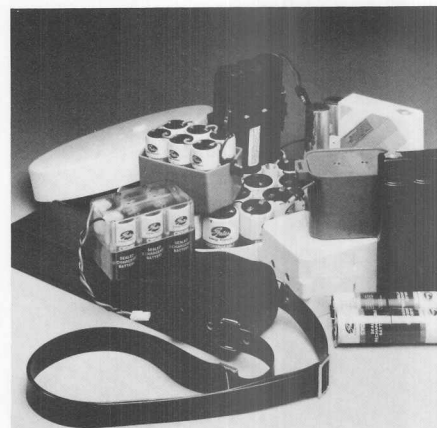
## Cyclon Cell/Battery Performance Benefits

Gates Energy Products Battery Selection Guide for Cyclon Cells and Batteries contains specifications for the four basic cell sizes, standard Cyclon batteries and Cyclon monobloc batteries.

Gates sealed rechargeable lead acid cells and batteries solve many of the problems associated with "conventional" types of batteries. The sealed construction utilizes a patented starved electrolyte system providing numerous advantages discussed below.

In addition to the wide range of standard configurations, Gates Cyclon cells offer a high degree of flexibility to meet unusual requirements. They can be custom assembled in an almost infinite variety of configurations to precise voltage and amp-hour needs.

For more information on any Gates Standard batteries or if you have any special requirements, please contact your Gates Energy Products sales office or distributor.



*Special Batteries*

<b>Long life</b>	In float, typically 8-10 years at 23° C before the battery will fall to 80% of rated capacity. In cyclic applications, 200 to 2,000 cycles, dependent on depth of discharge.
<b>Superior high rate performance</b>	Due to low internal impedance, the Gates cell gives high discharge currents and fast recharging times. This may make it possible to use a smaller battery package than an equivalent conventional battery.
<b>Excellent low temperature performance</b>	At -40° C, Cyclon cells will deliver 50% of C/10 room temperature capacity, where conventional lead acid batteries deliver 25% to 30% capacity at this temperature.
<b>Long storage life</b>	Cyclon cells can be stored for up to 3 years from a fully charged state at room temperature without recharging or damage to the cell.
<b>No acid spills or vapor damage</b>	Gates cells don't dry out and do not vent acid or acid vapor, so they can be used near delicate electronic circuitry. The self-resealing safety vent allows for abusive overcharge or charger failure without cell rupture.
<b>Ease of charging in float applications</b>	A constant voltage float charge of 2.35 volts per cell (no current limit required) will provide an 8-10 year expected lifetime. Chargers of this type provide a 90% recharge in as little as 5 hours, depending on current output.
<b>Efficient fast charging in cyclic applications</b>	The Gates battery can be fully recharged in less than one hour, using a constant voltage charger with current in the 5C range. Cyclon cells and batteries can be charged or discharged in any position and will not lose electrolyte during normal charging.
<b>High reliability and durability</b>	Cyclon cells and batteries offer excellent mechanical and vibrational strength.
<b>Dry cell classification</b>	All Gates Energy cells and batteries are classified as "dry" by the US Department of Transportation and by the International Air Transport Association and are not subject to Restricted Articles Regulations covering air shipment.



# Cyclon Single Cell/Batteries

## Performance Specifications

Gates Energy's Cyclon cells are available in four basic sizes and may be combined to form batteries of varying sizes and capacities.

Each cell is encased in a metal can, electrically isolated to prevent accidental shorting, and incorporates a self-sealing safety valve which will vent under abusive overcharge conditions at an internal pressure of about 50psi.



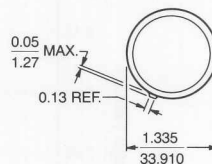
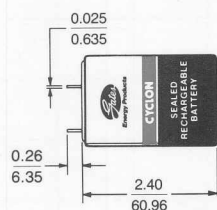
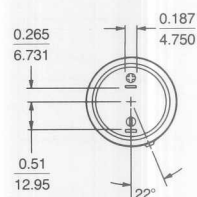
Typical Specifications (Ta = 25°C)	D Cell – 2.5Ah	X Cell – 5.0Ah	J Cell – 12.5Ah	BC Cell – 25.0Ah
<b>Product Number</b>	0810-0004	0800-0004	0840-0004	0820-0004
<b>Capacity Rating</b>				
20 hour rate	2.7Ah	5.4Ah	13.0Ah	26.0Ah
10 hour rate	2.5Ah	5.0Ah	12.5Ah	25.0Ah
1 hour rate	1.8Ah	3.2Ah	9.0Ah	17.5Ah
<b>Cell Power Rating</b>				
Peak Power	(@135A)135W	(@200A)200W	(@350A)325W	(@600A)600W
Energy/Unit Volume (@ C/10 rate)	1.47 W-h/in <sup>3</sup> 0.09 W-h/cm <sup>3</sup>	1.48 W-h/in <sup>3</sup> 0.09 W-h/cm <sup>3</sup>	1.48 W-h/in <sup>3</sup> 0.09 W-h/cm <sup>3</sup>	1.47 W-h/in <sup>3</sup> 0.09 W-h/cm <sup>3</sup>
Energy/Unit Weight (@ C/10 rate)	12.5 W-h/lb 27.5 W-h/kg	12.3 W-h/lb 27.17 W-h/kg	13.5 W-h/lb 29.7 W-h/kg	14 W-h/lb 31 W-h/kg
<b>Internal Resistance</b> (max. for a charged cell)	10 × 10 <sup>-3</sup> ohms <small>Measured on Hewlett-Packard 4328A milliohm meter.</small>	6 × 10 <sup>-3</sup> ohms	4 × 10 <sup>-3</sup> ohms	3 × 10 <sup>-3</sup> ohms
<b>Nominal Cell Voltage</b>	2.0V	2.0V	2.0V	2.0V
<b>Cell Temperature Range</b>	Storage Discharge Charge	-65°C to +65°C -65°C to +65°C -40°C to +65°C		
<b>Storage Time</b>	Ta = 0°C Ta = 23°C Ta = 65°C	7,200 days 1,200 days 60 days		
<b>Atmospheric Pressure Range</b>	0-8 Atmospheres			
<b>Cell Charging</b>	Constant Voltage cyclic float Constant Current cyclic, maximum float, maximum	2.40-2.60V 2.30-2.40V C/3 rate for D, X, J cells, C/5 rate for BC cells C/500 rate		
<b>Cycle Life</b>	200-2,000 cycles  <small>200 cycles — 100% depth of discharge, one cycle per day (Charge: 2.45V constant voltage, no current limit; Discharge: C/5 rate); 2000 cycles — 25% depth of discharge (Charge: 2.45V/cell for 7.5 hrs. — 2.0A current limit; Discharge: C/2 rate for 30 min); More cycles are available with shallower discharges.</small>			
<b>Expected Float Life</b>	8 years  <small>Based on accelerated test methods, 2.35 volts constant voltage charge at 23°C ambient temperature.</small>			



# Mechanical Specifications

All Dimensions =  $\frac{\text{Inches}}{\text{Millimeters}}$

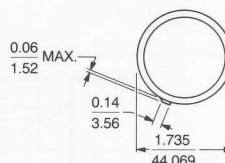
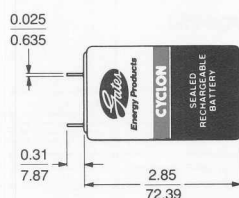
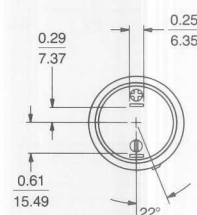
## D Cell



Length 2.650 in./67.31 mm  
Width (dia.) 1.335 in./33.91 mm  
Weight 6.4 oz./182 gm  
Tabs 0.187 in. × 0.025 in.  
4.750mm × 0.635mm

U.S. Patent Numbers 3,704,173-3,862,861

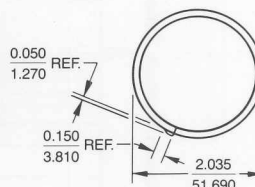
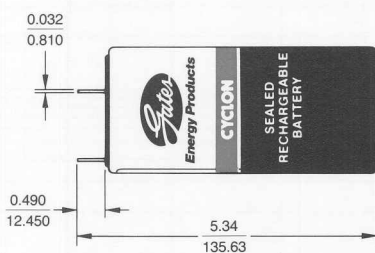
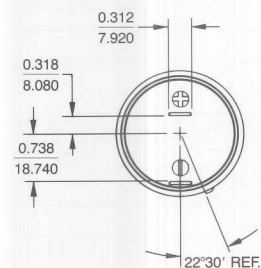
## X Cell



Length 3.160 in./80.26 mm  
Width (dia.) 1.735 in./44.07 mm  
Weight 13.0 oz./369 gm  
Tabs 0.250 in. × 0.025 in.  
6.350mm × 0.635mm

U.S. Patent Numbers 3,704,173-3,862,861

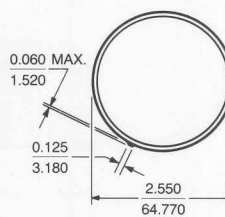
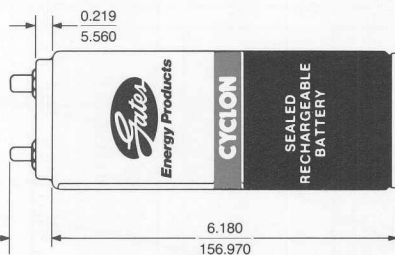
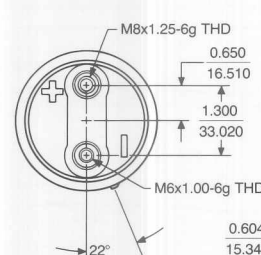
## J Cell



Length 5.340 in./135.63 mm  
Width (dia.) 2.035 in./51.69 mm  
Weight 1.85 lb./84 kg  
Tabs 0.312 in. × 0.032 in.  
7.92 mm × 0.81 mm

U.S. Patent Numbers 3,862,861-3,839,093

## BC Cell



Length 6.784 in./172.31 mm  
Width (dia.) 2.550 in./64.77 mm  
Weight 3.490 lbs./1.58 kg  
Studs M6 × 1-6g THD  
M8 × 1.25-6G THD

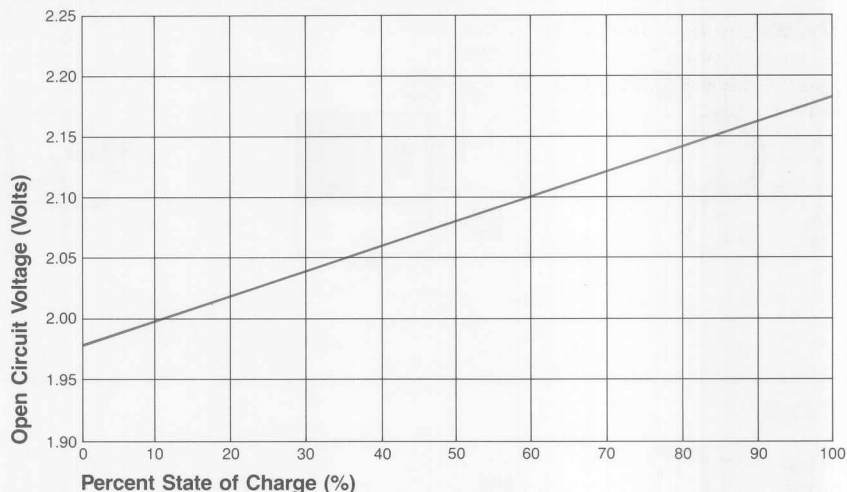
Terminal torque must not exceed 35 in. lbs. (3.95 nm)

U.S. Patent Numbers 3,862,861-3,839,093

## Performance Characteristics

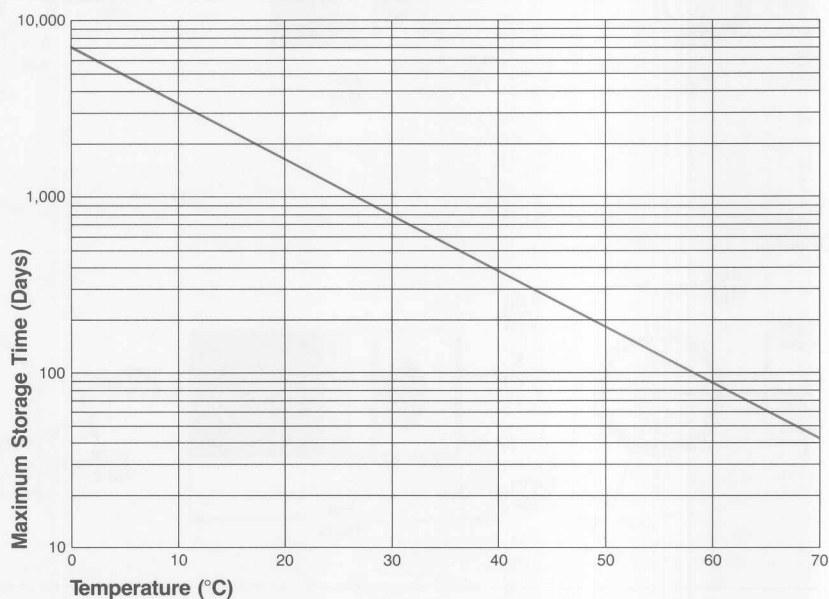
### State of Charge

This curve of OCV vs state of charge is accurate within 20% of the rated capacity of the cell being measured if it has not been charged or discharged within the past 24 hours. The accuracy increases to 5% if the cell has not been charged or discharged within the past 5 days.



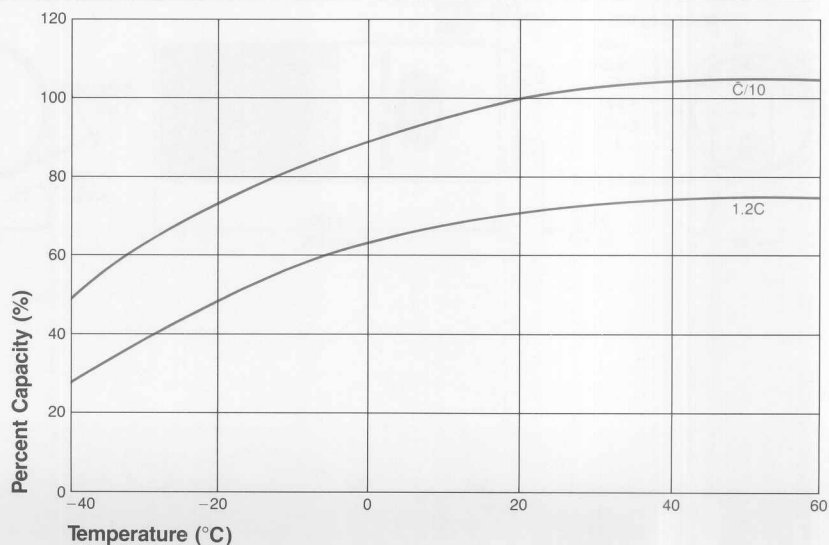
### Storage Characteristics

Storage time is very dependent on the storage temperature as shown in this maximum allowable storage time versus temperature curve for a fully charged cell.



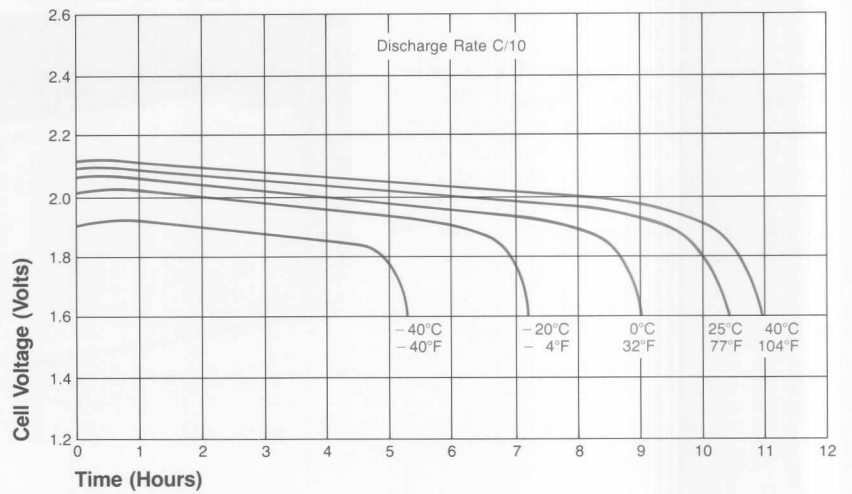
### Temperature Characteristics

This graph illustrates the capacity available in the cell as a function of temperature at two different discharge rates.



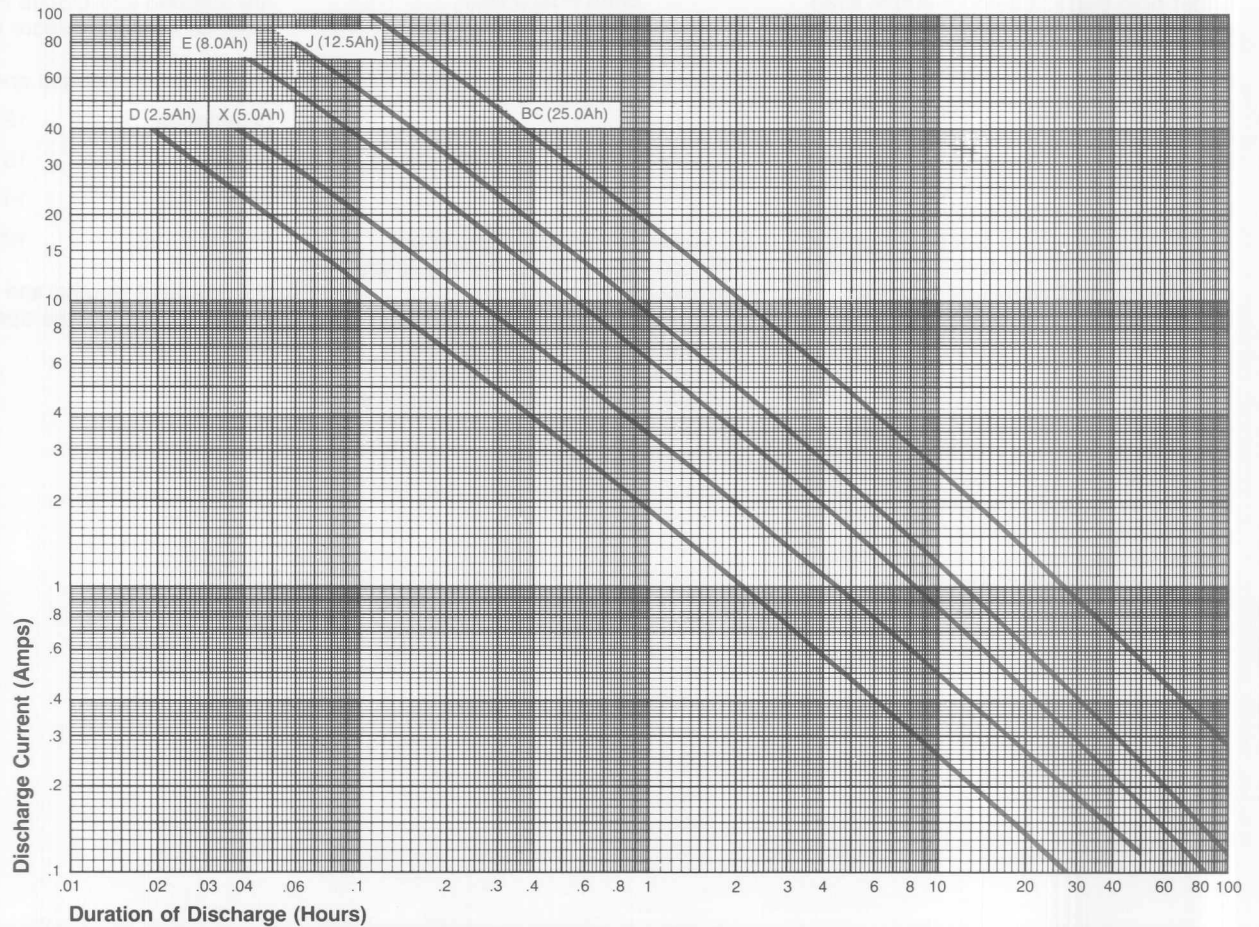
### Voltage Regulation

The voltage regulation of the Gates cell is equal to or better than any other commercially available system. Typical curves shown.



### Discharge Characteristics

New cells must be cycled appropriately before full rated capacity, as shown on this curve, is reached.





## Standard Battery Descriptions

Standard batteries offered are based on combinations of the previously described Cyclon cells and are available in 6, 8 and 12 volt configurations with capacities ranging from 2.5Ah to 25Ah.

### Battery Packages

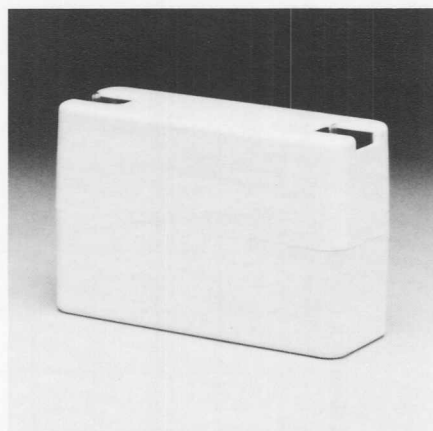
Either rigid plastic cases or shrink wrap containers are available.

### Rigid Plastic

Cases are either flame-retardant ABS Cyclac (Borg Warner) material, meeting UL94V-0 flammability rating, or Styrene (available only in 2x3 D and X battery configurations). Some cases have mounting holes. Rigid plastic cases are recommended for applications in which the battery must withstand vibration, movement or effects of weather.

### Shrink Wrap

Packaging is less expensive and smaller in size and weight. A plastic extrusion insulates the battery top and keeps the cells in line and a heavy duty shrink sleeve holds the cells firmly in place. Shrink wrap packaging is recommended for applications in which the battery remains stationary.



Case

### Battery Terminations

#### Tab Stud

D cells—.187" X .025"  
X cells—.250" X .025"  
J cells—.312" X .032"  
BC cells—6mm Post (Neg.),  
8mm Post (Pos.)

All terminals are tin-plated steel.

#### Tab Adapters

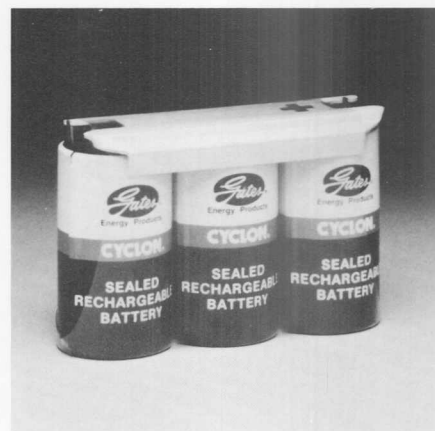
Available to convert .187" tabs to .250" tabs and vice versa.

#### BC Quick Disconnect Terminals

AMP series 250 Faston terminals are available for BC batteries.

#### Connection Terminations

A wide variety of terminations are available. Please specify or contact your GEP Sales Engineer for recommendations.



Shrink

### Fusible Links

Specify your requirement.

### Lead Wires

Stranded copper wire with insulation meeting UL1015 specifications (Red +, Black -). Standard leads extend 9 inches outside the battery pack. Ends are stripped and dipped in wax which must be removed before use.

Standard wire gauges are:

D batteries	18 AWG, UL1015
X batteries	16 AWG, UL1015
J batteries	14 AWG, UL1015
BC batteries	12 AWG, UL1015

Varying lead lengths and gauges are also available; please specify to your battery assembler.

## Intercell Connections

### Standard

D, X and J batteries – welded tin-plate steel connector.

BC batteries – solid copper.

### For Vibration-Prone Applications

D and X batteries – soldered, stranded wire.

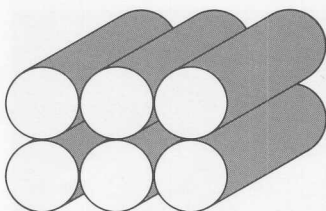
BC batteries – braided copper straps.

### Alternative Cell Cans

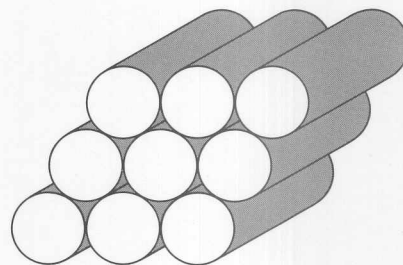
Standard batteries are in printed, seamed cans with Gates Cyclon graphics and appropriate caution notes. White, non-printed, seamed cans are available for D, X, J, and BC cells.

### Alternative Battery Configurations

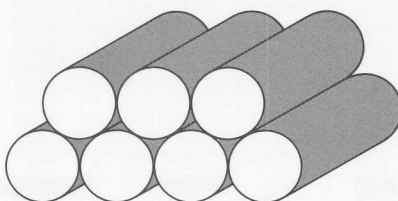
Standard battery configurations are rectangular arrangements. Other possible configurations are illustrated and can be held together with tape (offering the lowest cost and minimum electrical and mechanical protection) or by shrink wrapping.



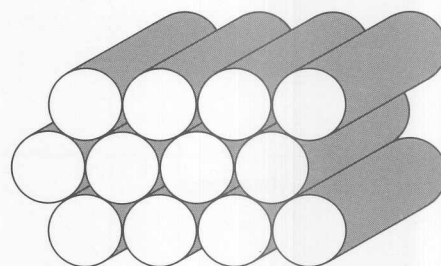
Rectangular



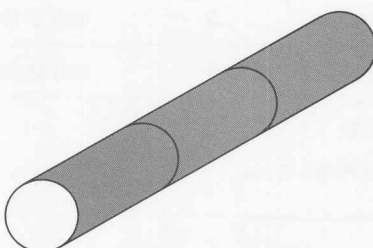
Rhomboid



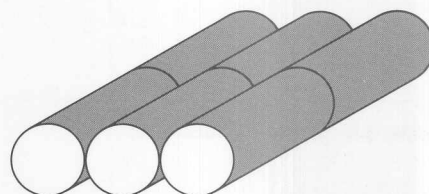
Trapezoid



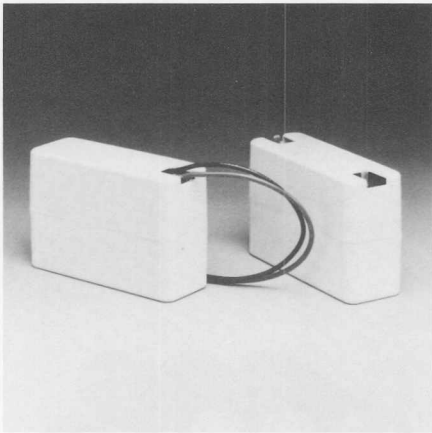
Nested



Tubular



Flat Pack



Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0810-0011	1	1x3 D DS ABS Case	No	1.32/.60
	0810-0077	2	1x3 D SS ABS Case	Yes	1.34/.61
	0810-0102	3	1x3 D DS Shrink Wrap	No	1.23/.56
	0810-0103	4	1x3 D Shrink Wrap	Yes	1.25/.56

Dimensional Specifications

Figure 1

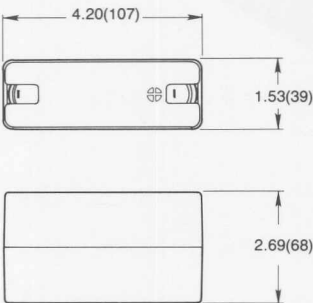


Figure 2

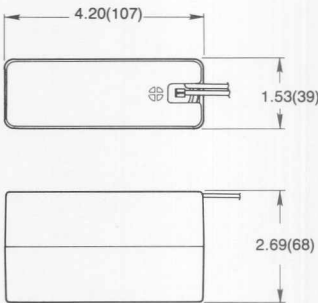


Figure 3

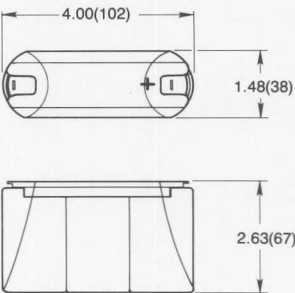
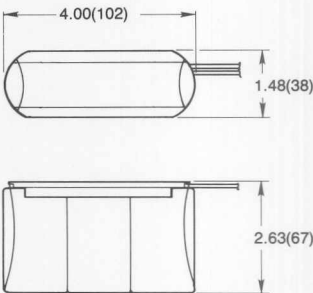
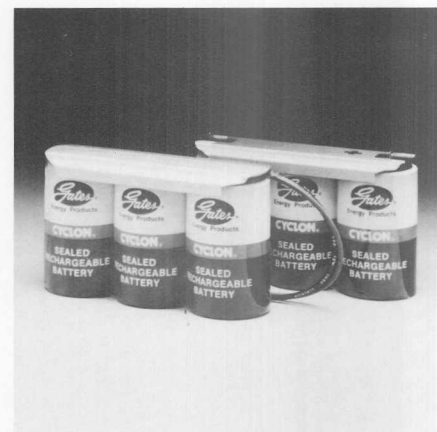
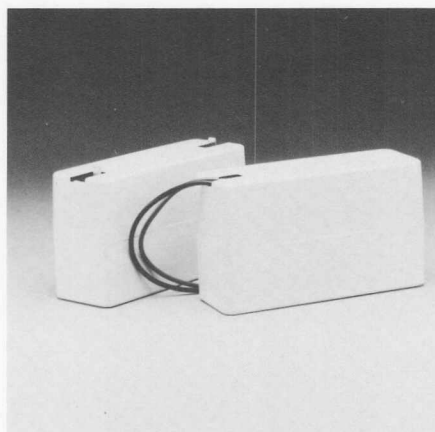


Figure 4





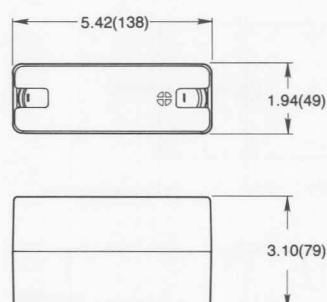


**Physical Specifications**

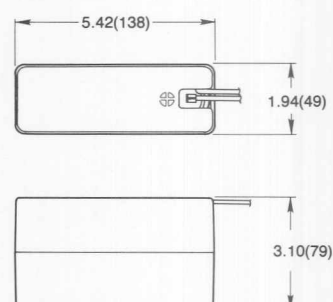
Product Number	Figure	Description	Leads	Weight (lbs./kg)
0800-0011	1	1x3 X DS ABS Case	No	2.58/1.17
0800-0071	2	1x3 X SS ABS Case	Yes	2.61/1.18
0800-0102	3	1x3 X DS Shrink Wrap	No	2.43/1.11
0800-0103	4	1x3 X Shrink Wrap	Yes	2.46/1.12

**Dimensional Specifications**

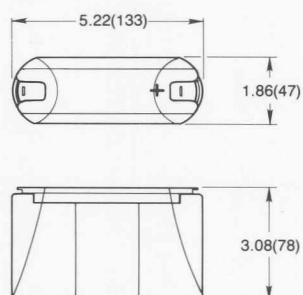
**Figure 1**



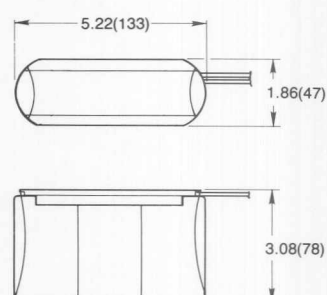
**Figure 2**

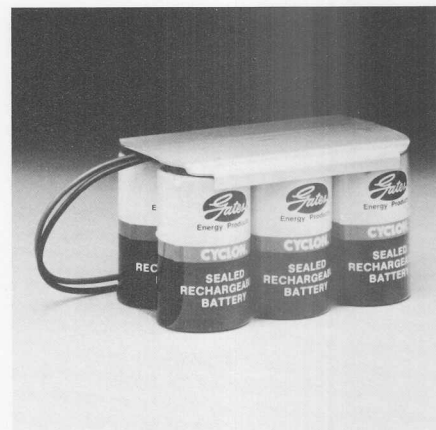
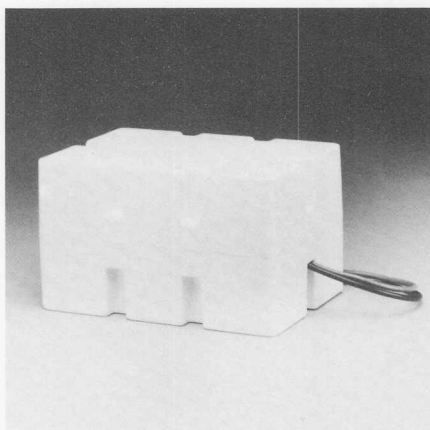


**Figure 3**



**Figure 4**





## Physical Specifications

Product Number	Figure	Description	Leads	Weight (lbs./kg)
0802-0008	1	2x3 X Styrene Case	Yes	5.23/2.37
0802-0016	2	2x3 X Shrink Wrap	Yes	4.86/2.20

## Dimensional Specifications

Figure 1

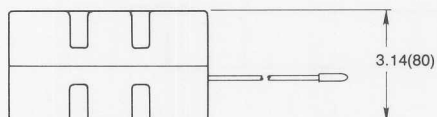
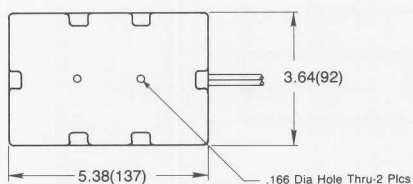
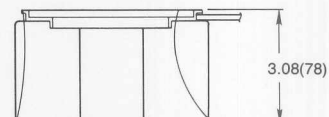
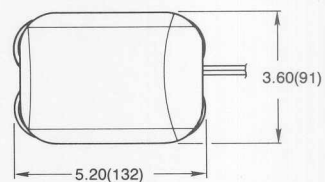


Figure 2





Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0840-0102	1	1x3 J Shrink Wrap	No	5.85/2.66
	0840-0103	2	1x3 J Shrink Wrap	Yes	5.85/2.66

Dimensional Specifications

Figure 1

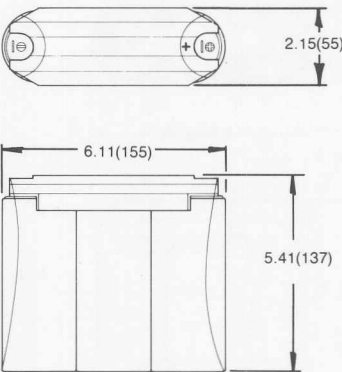
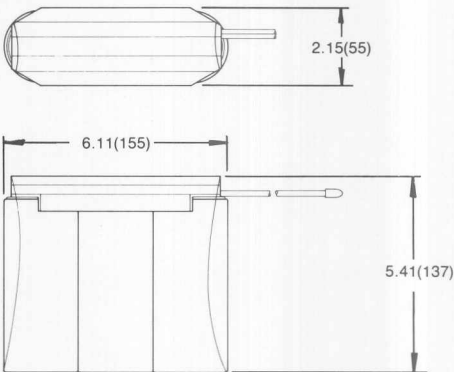


Figure 2



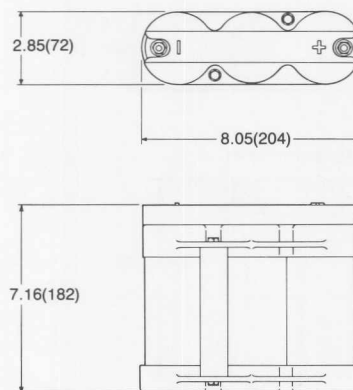


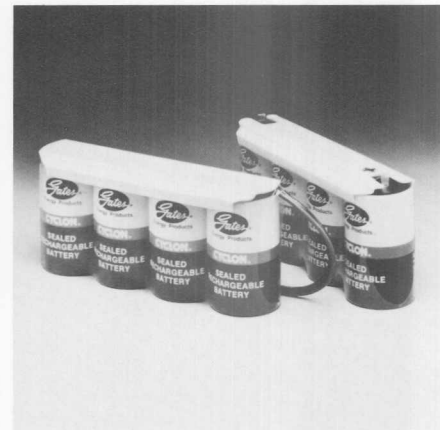
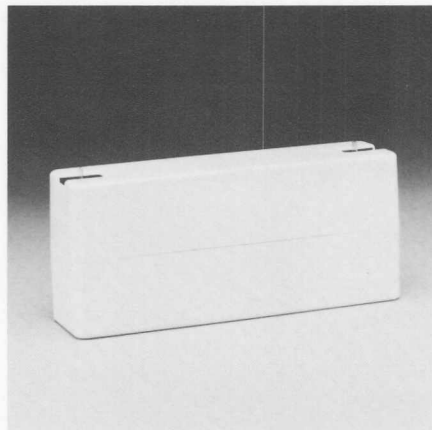


Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0820-0014	1	1x3 BC Copper Straps	No	11.08/5.02
	0820-0015	1	1x3 BC Braided Straps	No	11.08/5.02

## Dimensional Specifications

Figure 1

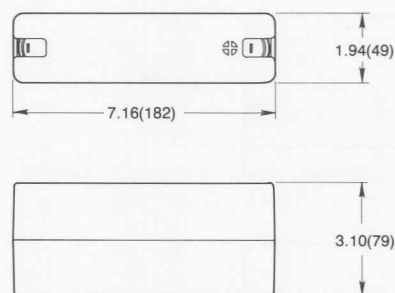




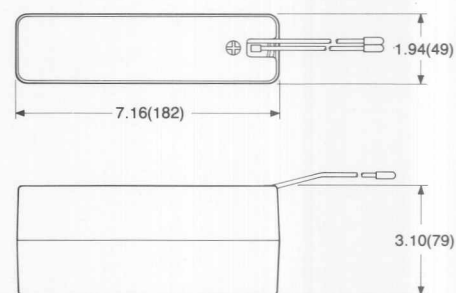
Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0800-0027	1	1x4 X DS ABS Case	No	3.43/1.56
	0800-0081	2	1x4 X SS ABS Case	Yes	3.43/1.56
	0800-0104	3	1x4 X DS Shrink Wrap	No	3.33/1.51
	0800-0105	4	1x4 X Shrink Wrap	Yes	3.33/1.51

**Dimensional Specifications**

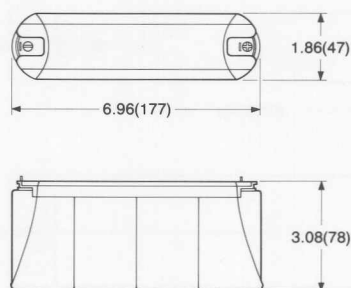
**Figure 1**



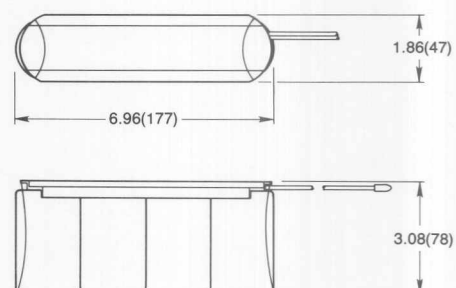
**Figure 2**

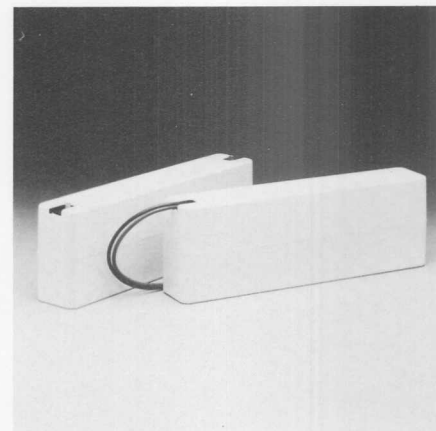
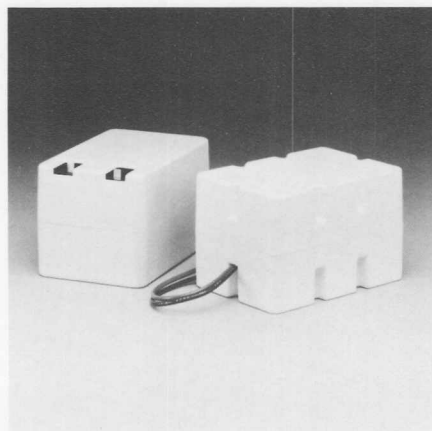


**Figure 3**



**Figure 4**





Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0810-0008	1	2x3 D DS ABS Case	No	2.61/1.18
	0810-0067	2	2x3 D Styrene Case	Yes	2.46/1.12
	0810-0016	3	1x6 D DS ABS Case	No	2.61/1.18
	0810-0075	4	1x6 D SS ABS Case	Yes	2.63/1.19

## Dimensional Specifications

Figure 1

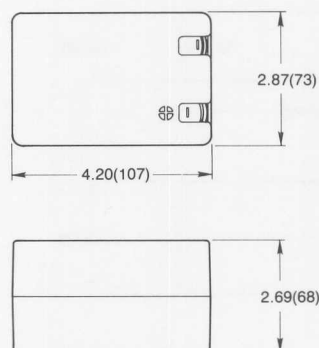


Figure 2

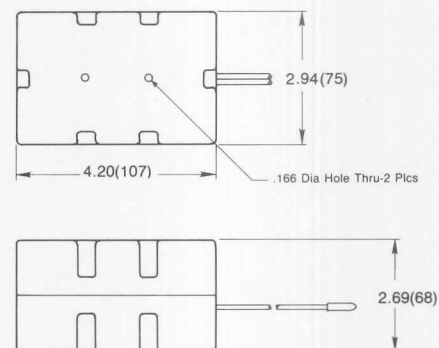


Figure 3

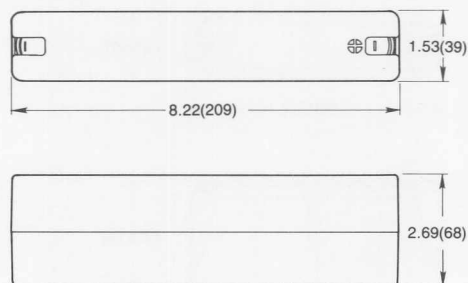
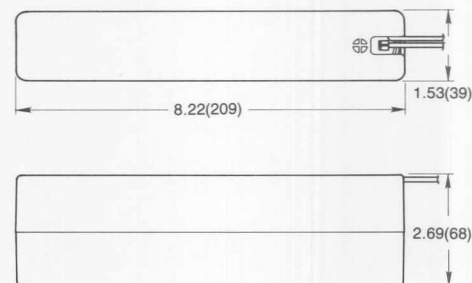
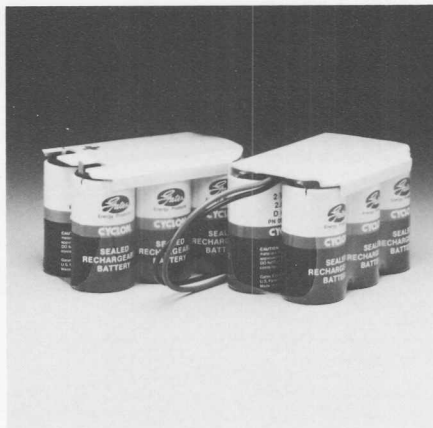


Figure 4





## Physical Specifications

Product Number	Figure	Description	Leads	Weight (lbs./kg)
0810-0114	1	2x3 D DS Shrink Wrap	No	2.44/1.11
0810-0115	2	2x3 D Shrink Wrap	Yes	2.49/1.13
0810-0108	3	1x6 D DS Shrink Wrap	No	2.48/1.13
0810-0109	4	1x6 D Shrink Wrap	Yes	2.49/1.13

## Dimensional Specifications

Figure 1

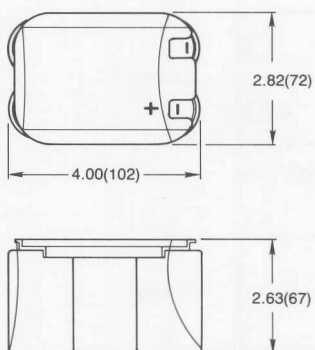


Figure 2

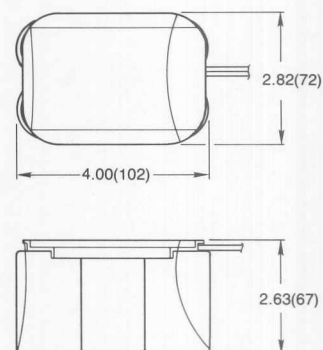


Figure 3

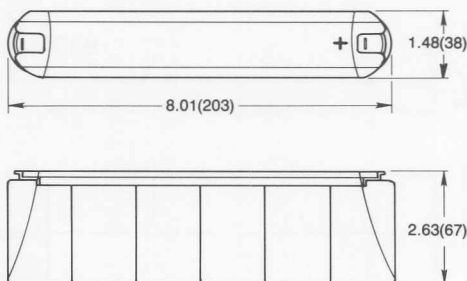
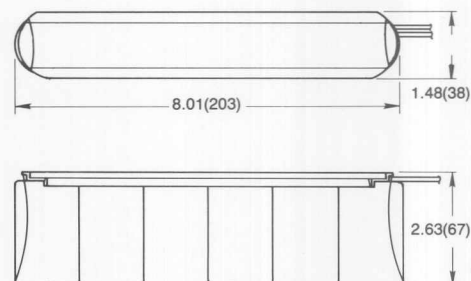
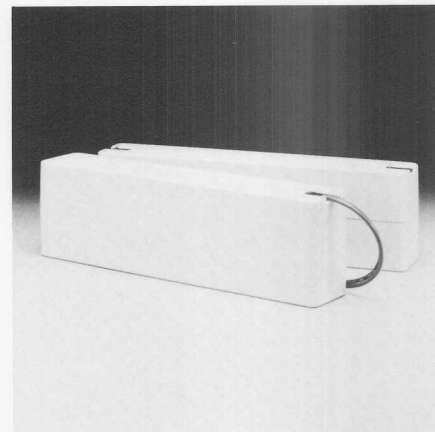
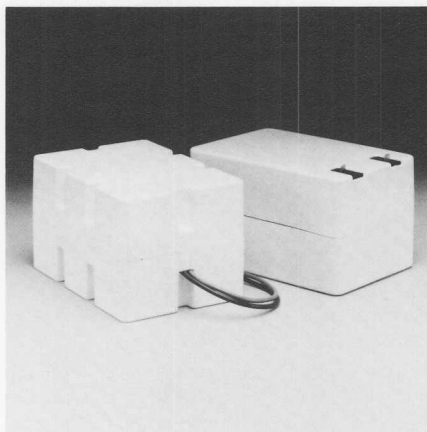


Figure 4



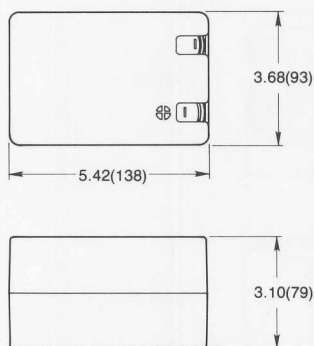


**Physical Specifications**

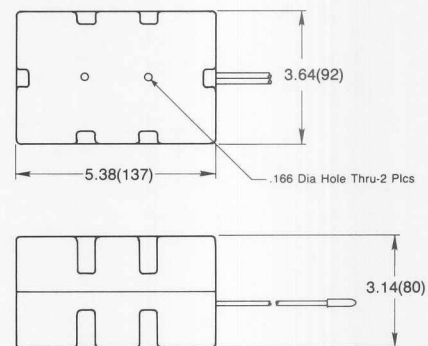
Product Number	Figure	Description	Leads	Weight (lbs./kg)
0800-0008	1	2x3 X DS ABS Case	No	5.18/2.35
0800-0047	2	2x3 X Styrene Case	Yes	5.23/2.37
0800-0016	3	1x6 DS ABS Case	No	5.26/2.39
0800-0072	4	1x6 X SS ABS Case	Yes	5.28/2.40

**Dimensional Specifications**

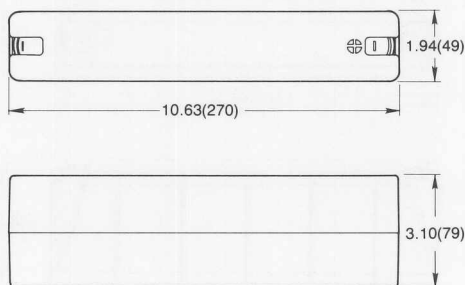
**Figure 1**



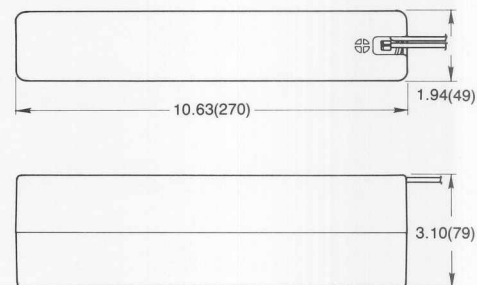
**Figure 2**



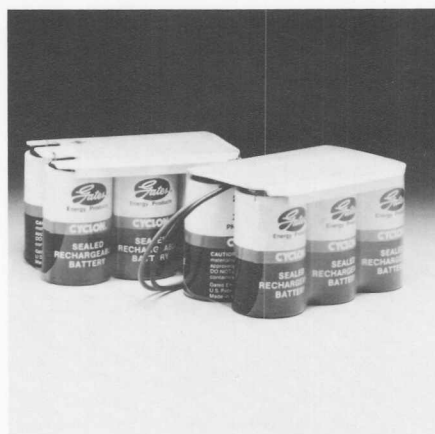
**Figure 3**



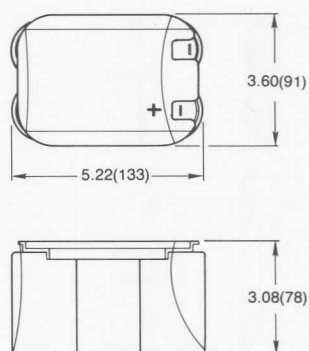
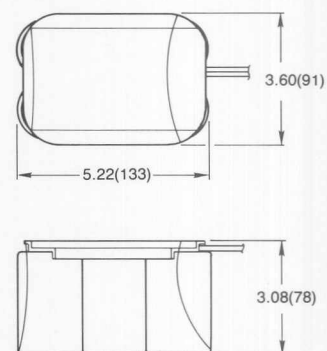
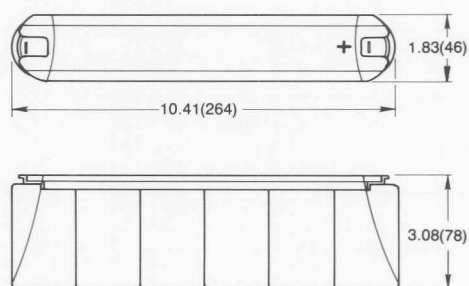
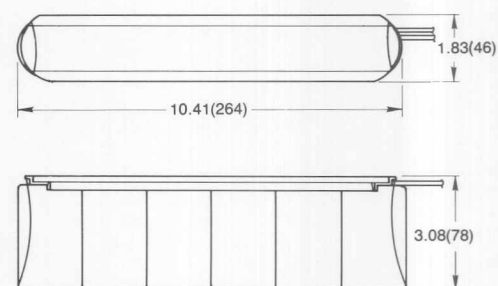
**Figure 4**






**Physical Specifications**

Product Number	Figure	Description	Leads	Weight (lbs./kg)
0800-0114	1	2x3 X DS Shrink Wrap	No	4.85/2.20
0800-0115	2	2x3 X Shrink Wrap	Yes	4.86/2.20
0800-0108	3	1x6 X DS Shrink Wrap	No	4.93/2.24
0800-0109	4	1x6 X Shrink Wrap	Yes	4.96/2.38

**Dimensional Specifications**
**Figure 1**

**Figure 2**

**Figure 3**

**Figure 4**




Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0840-0114	1	2x3 J Shrink Wrap	No	11.49/5.22
	0840-0115	2	2x3 J Shrink Wrap	Yes	11.49/5.22

Dimensional Specifications

Figure 1

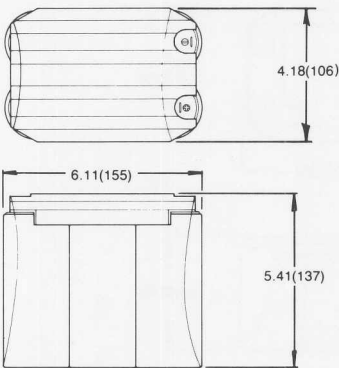
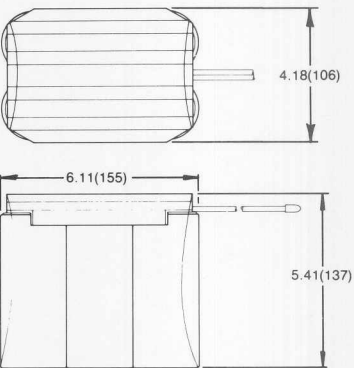
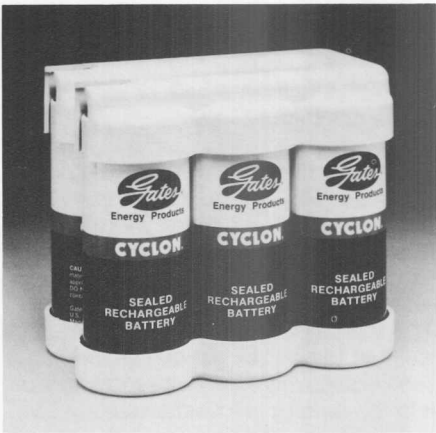


Figure 2

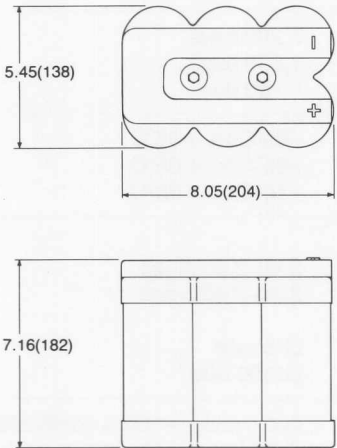




Physical Specifications	Product Number	Figure	Description	Leads	Weight (lbs./kg)
	0820-0020	1	2x3 BC Copper Straps	No	22.30/10.12
	0820-0022	1	2x3 BC Braided Straps	No	22.30/10.12

Dimensional Specifications

Figure 1



## Cyclon Monobloc Batteries

### Product Characteristics

### Performance Specifications

The Cyclon monobloc features connections which are internal to the battery rather than individual cells connected to form a battery as in the single cell battery.

The basic design of the monobloc eliminates 70% of the cell parts required for a 6-volt battery while still offering the same performance features as the single cell battery.

The plastic battery case is electrically isolated to prevent accidental shorting. A self-resealing safety valve, designed into the battery, will vent under abusive overcharge conditions.

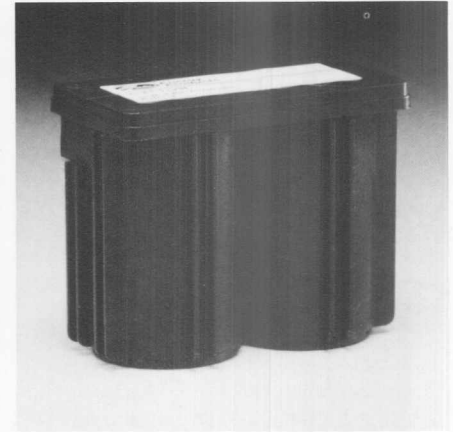
Cyclon monobloc batteries can be interconnected in series or parallel for additional voltage and capacity. The monobloc battery is supplied with standard electrical terminals which connect easily to .187, .250 or .312 series quick disconnect female terminals.

The Cyclon monobloc offers the same performance features as the Gates single cell. Please refer to the performance curves on pages 4 and 5 to determine state of charge, storage characteristics, discharge characteristics, voltage regulation, and temperature characteristics for the monobloc batteries.



Nominal Battery Voltage	4.0V or 6.0V		
Capacity Rating	2.5Ah	5.0Ah	8.0Ah
20 hour rate	2.7Ah	5.4Ah	8.6Ah
10 hour rate	2.5Ah	5.0Ah	8.0Ah
1 hour rate	1.8Ah	3.2Ah	5.8Ah
Internal Resistance (max. for a charged cell)	10x10 <sup>-3</sup> ohms Measured on Hewlett-Packard 4328A milliohm meter.	6x10 <sup>-3</sup> ohms	5x10 <sup>-3</sup> ohms
Standard Electrical Terminals	.187"x.025" Contact Gates Sales Representative for special terminal options.	.250"x.025"	.250"x.025"
Storage Time	Ta = 0°C Ta = 23°C Ta = 65°C	7,200 days 1,200 days 60 days	
Cell Temperature Range	Storage Discharge Charge	-65°C to +65°C -65°C to +65°C -40°C to +65°C	
Battery Charging	Constant Voltage Cyclic Float Constant Current Cyclic (max.) Float (max.)	2.40-2.60V/cell 2.30-2.40V/cell C/5 rate C/500 rate	
Cycle Life	200-2,000 cycles	200 cycles—100% depth of discharge, one cycle per day (Charge: 2.45V constant voltage, no current limit; Discharge: C/5 rate).  2000 cycles—25% depth of discharge (Charge: 2.45V/cell for 7.5 hours, 2.0A current limit; Discharge: C/2 rate for 30 minutes).  More cycles are available with shallower discharges.	
Expected Float Life	8 years	Based on accelerated test methods, 2.35 volts constant voltage charge at 23°C ambient temperature.	
Mounting	Each monobloc is equipped with .216 in/5.49 mm mounting holes in the cover. The tightening torque for mounting the monobloc is 25 inch pounds. When using 4 mounting bolts, small spacers (washers) 1 to 3 mm thick should be placed between the battery and the mounting surface to prevent bowing or stressing the battery case.		

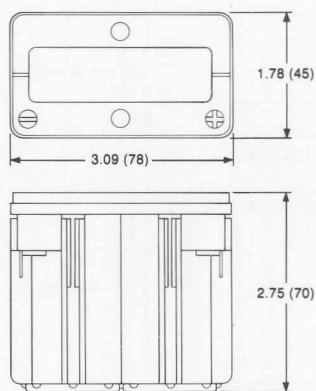
The battery dimensions in this catalog are for reference only. For toleranced dimensions contact GEP.



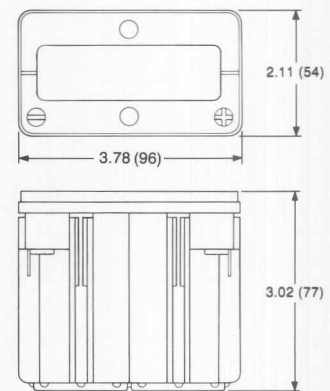
Physical Specifications	Product Number	Figure	Description	Weight (lbs./kg)
	0819-0010	1	4V 2.5Ah Monobloc	.80/.36
	0809-0010	2	4V 5.0Ah Monobloc	1.62/.74
	0859-0010	3	4V 8.0Ah Monobloc	2.43/1.11

**Dimensional Specifications**

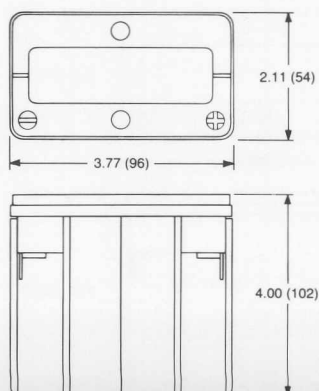
**Figure 1**



**Figure 2**



**Figure 3**







Physical Specifications	Product Number	Figure	Description	Weight (lbs./kg)
	0819-0012	1	6V 2.5Ah Monobloc	1.20/1.54
	0809-0012	2	6V 5.0Ah Monobloc	2.43/1.11
	0859-0012	3	6V 8.0Ah Monobloc	3.65/1.67

Dimensional Specifications

Figure 1

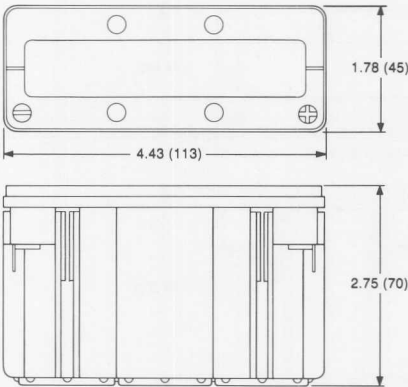


Figure 2

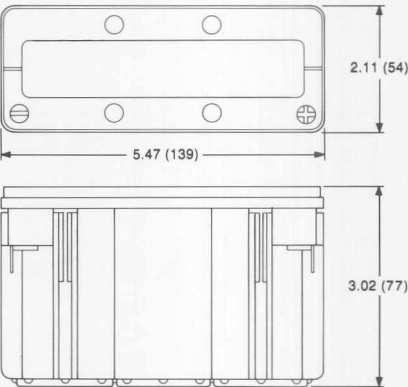
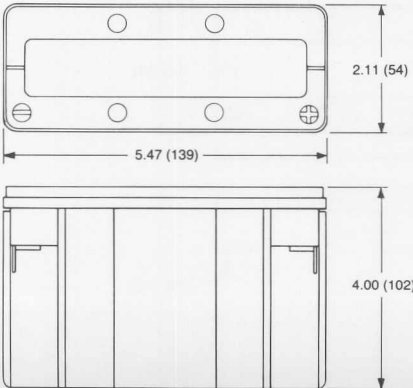


Figure 3



6 Volts 2.5/5.0/8.0Ah

Flame retardant material  
(UL 94-VO)

Monoblocs

All Dimensions = Inches (mm)



Physical Specifications	Product Number	Figure	Description	Weight (lbs./kg)
	0819-0050	1	6V 2.5Ah Monobloc	1.20/.54
	0809-0043	2	6V 5.0Ah Monobloc	2.43/1.11
	0859-0015	3	6V 8.0Ah Monobloc	3.65/1.67

Dimensional Specifications

Figure 1

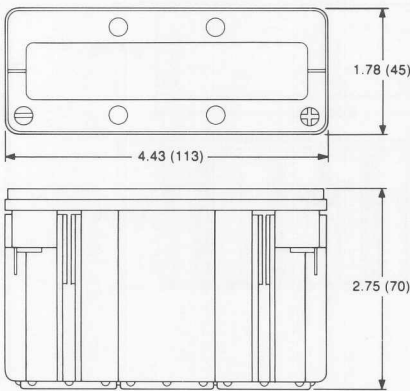


Figure 2

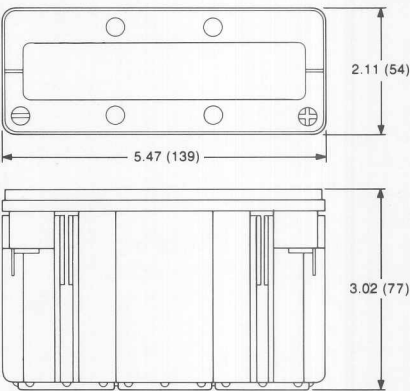
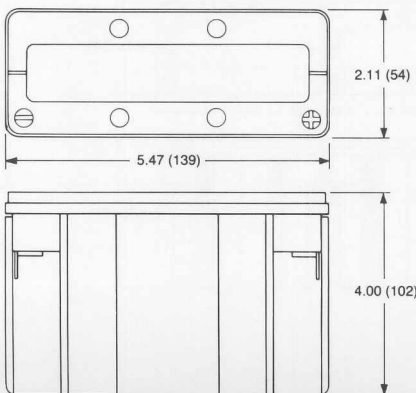
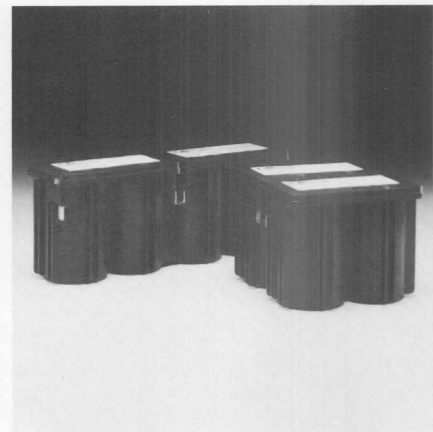
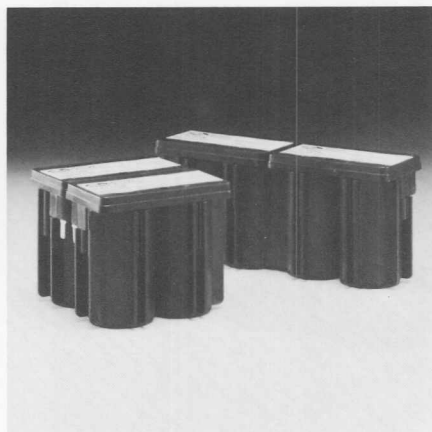


Figure 3





## Physical Specifications

Product Number	Figure	Description	Weight (lbs./kg)
0819-0014	1	1x4 8V 2.5Ah Monobloc	1.60/.73
0819-0019	2	2x2 8V 2.5Ah Monobloc	1.60/.73
0809-0014	3	1x4 8V 5.0Ah Monobloc	3.24/1.47
0809-0019	4	2x2 8V 5.0Ah Monobloc	3.24/1.47

## Dimensional Specifications

Figure 1

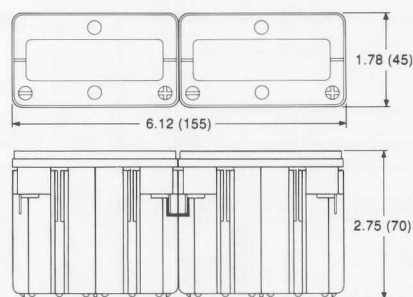


Figure 2

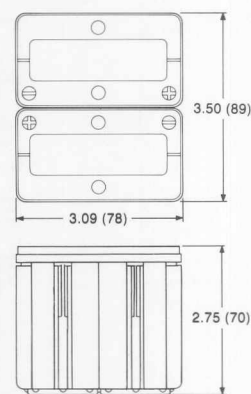


Figure 3

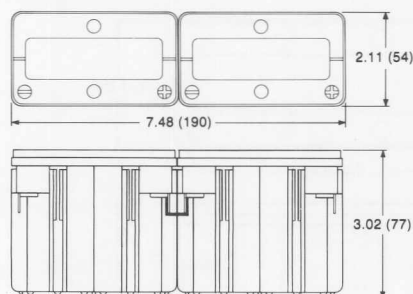
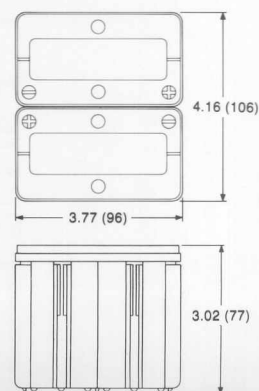


Figure 4

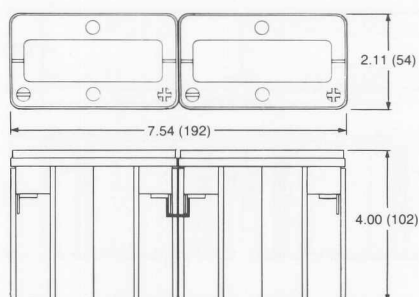




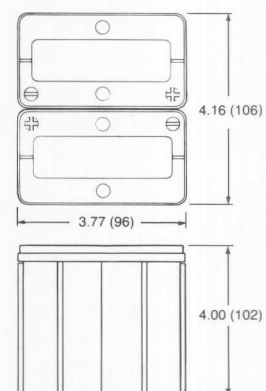
Physical Specifications	Product Number	Figure	Description	Weight (lbs./kg)
	0859-0014	1	1x4 8V 8.0Ah Monobloc	4.86/2.20
	0859-0019	2	2x2 8V 8.0Ah Monobloc	4.86/2.20

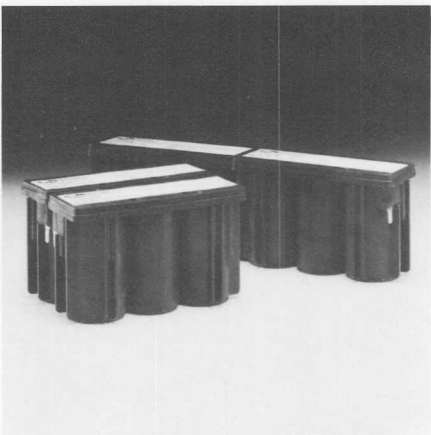
**Dimensional Specifications**

**Figure 1**



**Figure 2**





Physical Specifications	Product Number	Figure	Description	Weight (lbs./kg)
	0819-0016	1	1x6 12V 2.5Ah Monobloc	2.40/1.09
	0819-0020	2	2x3 12V 2.5Ah Monobloc	2.40/1.09
	0809-0016	3	1x6 12V 5.0Ah Monobloc	4.86/2.21
	0809-0020	4	2x3 12V 5.0Ah Monobloc	4.86/2.21

Dimensional Specifications

Figure 1

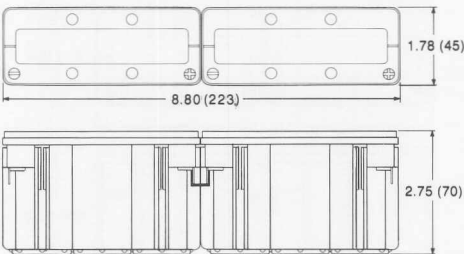


Figure 2

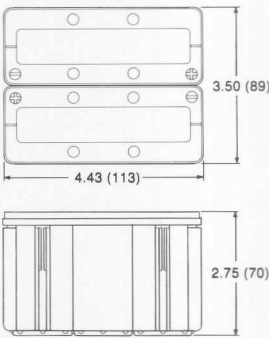


Figure 3

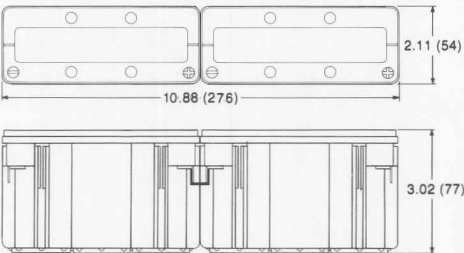
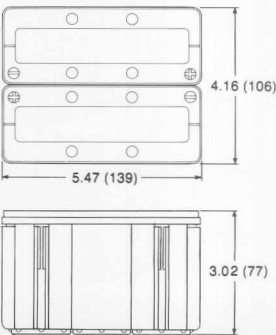


Figure 4







## Physical Specifications

Product Number	Figure	Description	Weight (lbs./kg)
0859-0016	1	1x6 12V 8.0Ah Monobloc	7.30/3.31
0859-0020	2	2x3 12V 8.0Ah Monobloc	7.30/3.31

## Dimensional Specifications

Figure 1

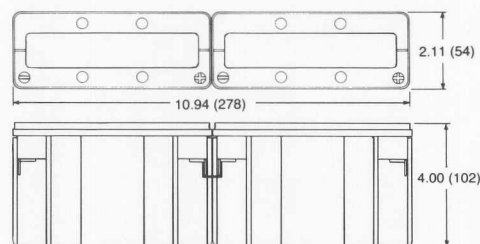


Figure 2

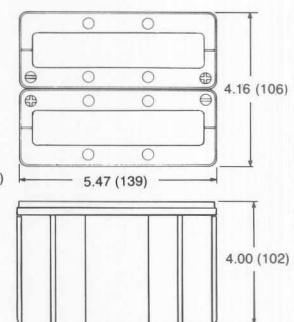




Figure 1  
Figure 2  
Figure 3

Figure 4  
Figure 5  
Figure 6



## Product Listing

Product Number	Description	Page
0800-0008	12 Volt 5.0Ah	16
0800-0011	6 Volt 5.0Ah	9
0800-0016	12 Volt 5.0Ah	16
0800-0027	8 Volt 5.0Ah	13
0800-0047	12 Volt 5.0Ah	16
0800-0071	6 Volt 5.0Ah	9
0800-0072	12 Volt 5.0Ah	16
0800-0081	8 Volt 5.0Ah	13
0800-0102	6 Volt 5.0Ah	9
0800-0103	6 Volt 5.0Ah	9
0800-0104	8 Volt 5.0Ah	13
0800-0105	8 Volt 5.0Ah	13
0800-0108	12 Volt 5.0Ah	17
0800-0109	12 Volt 5.0Ah	17
0800-0114	12 Volt 5.0Ah	17
0800-0115	12 Volt 5.0Ah	17
0802-0008	6 Volt 10.0Ah	10
0802-0016	6 Volt 10.0Ah	10
0809-0010	4 Volt 5.0Ah	21
0809-0012	6 Volt 5.0Ah	22
0809-0014	8 Volt 5.0Ah	24
0809-0016	12 Volt 5.0Ah	26
0809-0019	8 Volt 5.0Ah	24
0809-0020	12 Volt 5.0Ah	26
0809-0043	6 Volt 5.0Ah	23
0810-0008	12 Volt 2.5Ah	14
0810-0011	6 Volt 2.5Ah	8
0810-0016	12 Volt 2.5Ah	14
0810-0067	12 Volt 2.5Ah	14

Product Number	Description	Page
0810-0075	12 Volt 2.5Ah	14
0810-0077	6 Volt 2.5Ah	8
0810-0102	6 Volt 2.5Ah	8
0810-0103	6 Volt 2.5Ah	8
0810-0108	12 Volt 2.5Ah	15
0810-0109	12 Volt 2.5Ah	15
0810-0114	12 Volt 2.5Ah	15
0810-0115	12 Volt 2.5Ah	15
0819-0010	4 Volt 2.5Ah	21
0819-0012	6 Volt 2.5Ah	22
0819-0014	8 Volt 2.5Ah	24
0819-0016	12 Volt 2.5Ah	26
0819-0019	8 Volt 2.5Ah	24
0819-0020	12 Volt 2.5Ah	26
0819-0050	6 Volt 2.5Ah	23
0820-0014	6 Volt 25.0Ah	12
0820-0015	6 Volt 25.0Ah	12
0820-0020	12 Volt 25.0Ah	19
0840-0102	6 Volt 12.5Ah	11
0840-0103	6 Volt 12.5Ah	11
0840-0114	12 Volt 12.5Ah	18
0840-0115	12 Volt 12.5Ah	18
0859-0010	4 Volt 8.0Ah	21
0859-0012	6 Volt 8.0Ah	22
0859-0014	8 Volt 8.0Ah	25
0859-0015	6 Volt 8.0Ah	23
0859-0016	12 Volt 8.0Ah	27
0859-0019	8 Volt 8.0Ah	25
0859-0020	12 Volt 8.0Ah	27

### **The Power of Great Ideas**

At Gates Energy Products, we make more than batteries. We give you the power to bring ideas to life. With our extensive line of maintenance-free rechargeable batteries to power products for virtually any application, from cordless shavers to satellites. Backed by comprehensive customer support to ensure you get the right battery and the right design. To put the power of great ideas to work for you, just call your Gates regional sales office.

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#### **Nickel-Hydrogen**

- Aerospace/Satellite Cells

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